

NATIONAL SCIENCE FOUNDATION

4201 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22230

Date: December 24, 2006

Title: Division of Industrial Innovation and Partnership (IIP), Directorate for Engineering (ENG) Employment Opportunity: Industry University Cooperative Research Center (I/UCRC) Program Director

Position Closing Date: February 28, 2007.

This document replaces: iip0701 and iip0701a.

Dear Colleague:

The Division of Industrial Innovation and Partnership (IIP) announce a nationwide search for a qualified candidate to fill a Program Director position for the Industry University Cooperative Research Center (I/UCRC) Program at the National Science Foundation (NSF). Please review the attached Program Director IPA Position Description for the Industry/University Cooperative Research Centers program. This position will be filled on a one or two year Intergovernmental Personnel Act (IPA) assignment.

Program Director positions at the NSF provide a challenging experience and an excellent opportunity to encourage and support science, technology, engineering, and mathematics (STEM) research and education and for working with academe and industry to develop strategic plans to advance technology and produce graduates who are more effective in industrial practice. The successful candidate will work with other Program Directors in formulating and implementing improvements in the Program, developing cooperation among government, academia, and industry, fostering outreach to underrepresented groups, and providing leadership within NSF and the research community.

Should you or your colleagues be interested in this position, please contact the IIP Search Committee Coordinator, Glenn H. Larsen (contact information below) and forward a Letter of Interest and your vita via either e-mail (preferred method) or mail by February 28, 2007. Applications will be reviewed immediately after this date.

Glenn H. Larsen,
IIP/IUCRC Search Committee Coordinator
Division of Industrial Innovation and Partnerships
National Science Foundation
4201 Wilson Boulevard, Suite 505N
Arlington, VA 22230

Phone: (703) 292-4607

Fax: 703/292-9052

Email: glarsen@nsf.gov

**Industrial Innovation
and Partnerships (IIP)**



**SBIR/STTR
I/UCRC
GOALI
PFI**

Program Director

IPA Position Description for

Industry/University Cooperative Research Program (I/UCRC)

December 24, 2006

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1 Overview

The Industry/University Cooperative Research Centers (I/UCRCs) program develops long-term partnerships among industry, academe, and government. The centers are catalyzed by a small investment from the National Science Foundation (NSF) and are primarily supported by center members, with NSF taking a supporting role in their development and evolution. Members of a center form an Industry Advisory Board (IAB) to help establish the research agenda of a given center. I/UCRCs stimulate highly leveraged industry/university cooperation by focusing on fundamental research recommended by Industrial Advisory Boards. More information about the I/UCRC program is available at <http://www.nsf.gov/eng/iip/iucrc/about.jsp>.

Enabling I/UCRC partnerships require careful management and proactive communications to integrate member research needs, multiple university assets, and center interactions into a single cohesive center. There are approximately 40 centers, each of which holds two day, semi-annual meetings. Because this integration is so critical to the continued successful evolution of the I/UCRC program, an IPA program director is needed to help manage and coordinate the program and center activities.

The appointee is expected to assist in I/UCRC program coordination, planning, and administration of the I/UCRC program within the framework of agency policies, strategic plans, missions, objectives, and resources under the guidance of the I/UCRC Program Team Leader. The key objectives for the IPA Program Director's role are:

- Specific oversight and review of the I/UCRCs;
- Analysis of center research programs, industrial collaboration and center management;
- Provide management guidance to IUCRC directors and the Industrial Advisory Boards (IAB) for each center;
- Development of strategies to promote synergy among research centers and sites;
- Planning, implementing, controlling, and general management of I/UCRC proposal review panels for I/UCRC grants and supplements; and
- Assist other programs of the division as assigned.

I/UCRCs require frequent communications with members and center staff to coordinate and integrate NSF I/UCRC methodologies and processes. It cannot be overstated that the success of communications is critical to the success of a center's operations and research. The IPA Program Director will require strong leadership and people management skills.

2 Purpose

The purpose of this role is to help provide consistency in the management and operations across approximately 40 I/UCRCs within the guidelines of NSF, the Division of Industrial Innovation and Partnerships, and the Industry/University Cooperative Research Program while enabling centers to grow and expand their research base through industry participation.

3 Responsibilities

In addition to the objectives in Section 1, the IPA Program Director shares in the responsibility for the overall success of the I/UCRC program that include planned centers, centers in operation, and centers that have graduated from NSF funding to self-sufficiency. The shared responsibilities to manage centers may include the following:

Center Initiation (Letter of Intent)

- Recruit suitability skilled and qualified center directors and co-directors.
- Review proposal feasibility studies to ensure that proposed new centers are achievable and sustainable.
- Provide management and operational guidance to prospective center directors.
- Determine effects on funding with total operational budget.
- Contact reviewers and hold a panel to evaluate proposed centers.
- Provide management guidance to prospective center directors on the creation of marketing, financial, staffing, and research plans.

Center Planning (Planning Grant and Full Proposals)

- Work with center directors to schedule the phases, activities, and tasks required to undertake the center.
- Review and provide guidance to proposed center standards and procedures for quality assurance and quality control
- Establish with center directors to schedule the required resources (meeting deliverables for planning grants).
- Communicate member concerns with center management to achieve overall member satisfaction with research projects and their deliverables.
- Help centers to establish a clear Communications Plan.

Project Execution (Ongoing)

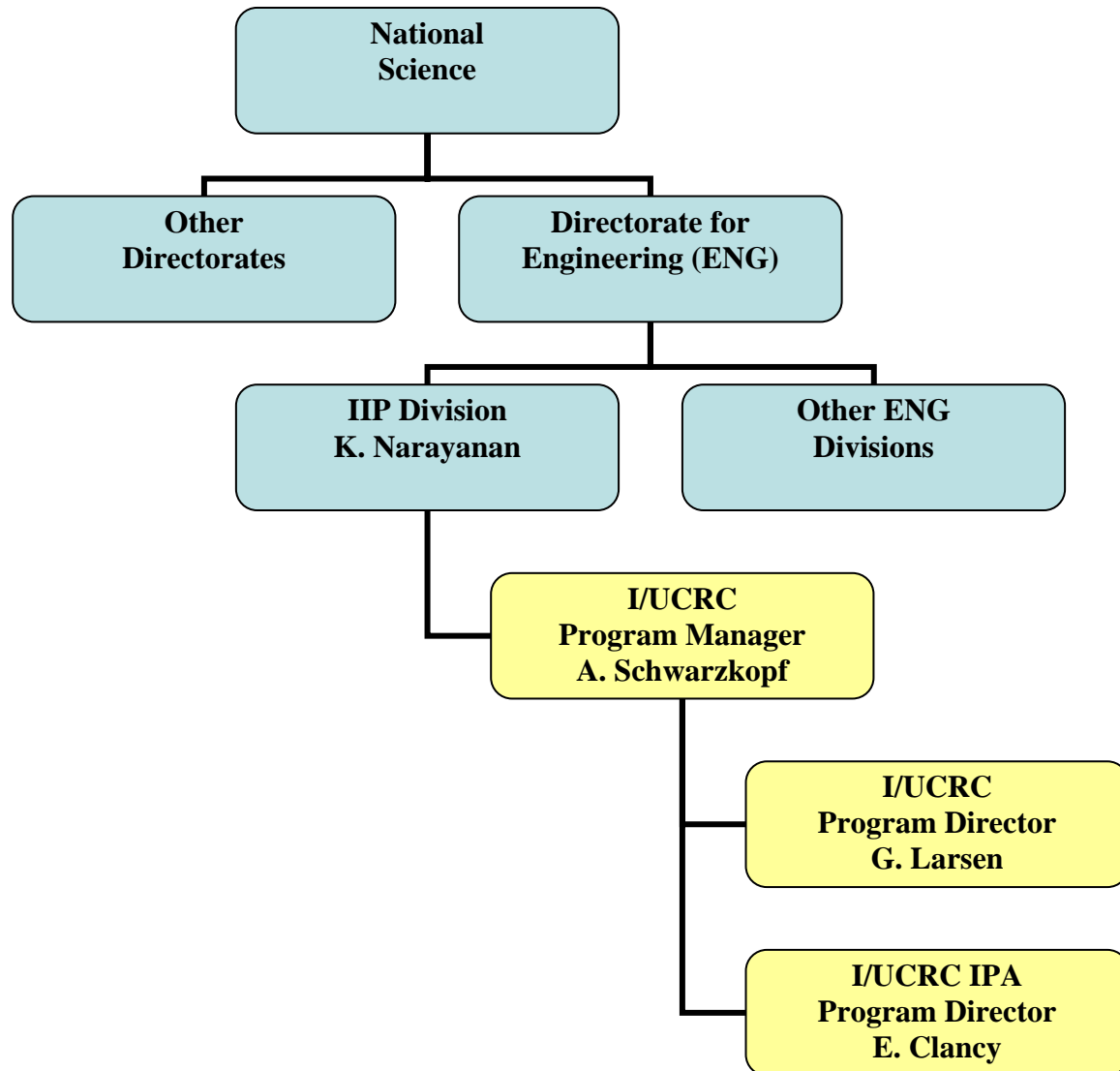
- Generate and promote interest in growth centers that incorporate multiple institutions.
- Control and monitor the program budget to ensure that the program remains within budget
- Coordinate with other NSF and federal organizations to arranging government leveraging of resources.
- Ensure that defined quality targets are achieved, by undertaking quality assurance and quality control
- Monitor, control, and manage the implementation of center change requests
- Identify and resolve all issues currently affecting the program.
- Evaluate and promote program and center activities
- Keep program stakeholders regularly and suitably informed of program progress
- Review and act on annual reports submitted by center directors.
- Ensure that center directors provide annual statistical and other information required by the program.

Project Closure

- Undertake all actions necessary to formally graduate a center.

4 Organization

An organization chart showing the I/UCRC program is depicted below.



Dr. Edward Clancy's IPA appointment ends on August 31, 2007.

5 Relationships

The IPA Program Director receives instructions and assignments directly from the Senior Program Director for the I/UCRC program and operates autonomously within the parameters established by the program and assignments. The Program Director will also have a direct relationship with the people in the following roles:

Program Manager. The Program Director will work with the Program Manager to ensure that he is provided with the support and guidance needed. The Program Director



will keep the Program Manager properly informed of the status of all high-level risks, issues and changes throughout the Center Lifecycle.

Industry Advisory Board (IAB). Each center has an industry advisory board. The Program Manager must ensure that the needs of the IAB are considered and acted upon by center management. The IAB requires research project status information to information to enable the board to make informed strategic decisions for research project that assure continued member involvement.

Center and Site Directors. The Program Director support center directors by providing the advice, guidance and mentoring necessary to help them to achieve their center success.

Other IIP and I/UCRC Program Directors. The Program Director will lead, motivate, and inspire fellow team members to achieve their objectives by ensuring that each team member works for the success of the overall division.

NSF and Center Management. The Program Director will keep NSF management informed of the progress of the program, as appropriate. The Program Director must use discretion, by handling all confidential information with the greatest of care.

NSF and Center Staff. This program will likely impact on the roles and responsibilities of many staff member within NSF and its centers. The Program Director must therefore keep all affected staff regularly informed of important development, new opportunities, the status of the program, any changes that affect their roles.

6 Skills

The Program Director must have the following key skills and competencies:

Leadership

Ability to define clear program objectives and motivate and inspire teams to performance

- Strong people management skills with experience managing teams under difficult circumstances
- Skill resolving conflict in high stress environments
- Exceptional negotiation and problem solving skills
- Strong communication and presentation skills

Industry and University Research Management

- A detailed understanding of the research and development lifecycle
- The ability to implement a structured center methodology

Team Management

- Understanding of the required motivators to maximize team performance
- Ability to clearly and concisely define objectives for I/UCRCs and their teams
- Skill in building, guiding, and supporting teams

Financial Management

- Ability to construct a detailed project budget and control expenditure against this budget
- Skill in producing accurate program forecasts throughout the center lifecycle

Communications and Marketing Management

- Excellent skills in client relations with ability to present difficult propositions in a clear and positive way
- Ability to take on IAB and center problems and issues to create a workable solution wherever possible
- Ability to help promote the I/UCRC program to potential members and have them participate in the center program.

7 Experience

The ideal candidate will have the following experience:

- Six or more years of successful, related industry and university experience pertinent to the program
- Applicants should also have research administration, contract, and managerial experience demonstrating disciplinary and interdisciplinary expertise
- University center experience in highly desirable
- Experience managing difficult and complex projects
- Demonstrable presentation skills are especially important.

8 Qualifications

The ideal candidate will have the following experience:

- A Ph.D. or equivalent experience in engineering, science, or technology discipline.

9 Traits

NSF Program Directors bear the primary responsibility for carrying out the Agency's overall mission: to support innovative and merit-reviewed activities in basic research and education that contribute to the nation's technical strength, security, and welfare. To discharge this responsibility requires not only knowledge in the appropriate disciplines, but also a commitment to high standards, a considerable breadth of interest and receptivity to new ideas, a strong sense of fairness, good judgment, and a high degree of personal integrity.

10 Work Environment

The following statements describe the general working conditions applying to this role:

- The Program Directors can expect a wide variety of stakeholders to attempt to influence the way in which the centers are operated and managed
- This an extremely challenging position due to the extent of center diversity and composition

11 Salary

For an IPA assignment, the individual remains on the payroll of his/her home institution and the institution continues to administer pay and benefits. NSF will reimburse the institution for NSF's negotiated share of the costs. Individuals eligible for an IPA



assignment include employees of State and local government agencies, institutions of higher education, Indian tribal governments, federally funded research and development centers, and qualified non-profit organizations. For more information regarding a Visiting Scientist appointment or an IPA assignment, visit our website at http://www.nsf.gov/about/career_opps.

12 Special Conditions

The following special conditions also apply to this role, requiring:

- Long working hours outside the regular workweek for some activities
- Frequent travel.